



Trans-Lake Washington Project

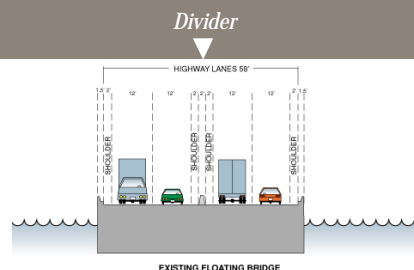
Washington State
Department of Transportation
Sound Transit

Proposed Multi-Modal Alternatives

1



STATUS QUO



No Action

- ▶ Continued maintenance of facility
- ▶ No other action taken

2



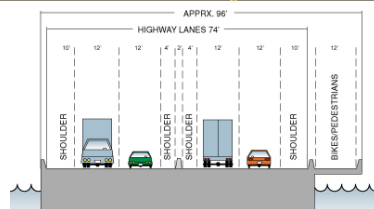
I-90 LRT



Bike / Pedestrian



Seismic Retrofitting



SR 520 Safety & Preservation, I-90 LRT

- ▶ Replace the floating bridge and seismically deficient structures, seismic upgrades, add bicycle/ pedestrian facilities, and aggressive strategies to manage transportation demand
- ▶ Add light rail on I-90
- ▶ Includes provisions for mitigation and enhancement

3



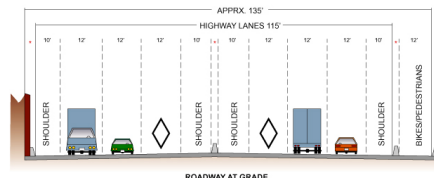
I-90 LRT



Bike / Pedestrian



HOV



SR 520 HOV, I-90 LRT

- ▶ Add one high occupancy vehicle (HOV) lane each direction, add bicycle/pedestrian facilities, and aggressive strategies to manage transportation demand
- ▶ Add light rail on I-90, HOV/Bus facilities on SR 520
- ▶ Includes provisions for mitigation and enhancement

4



I-90 LRT



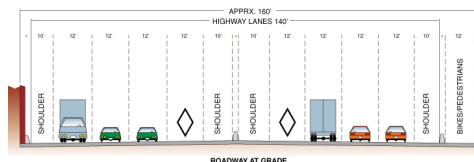
Bike / Pedestrian



HOV



GP



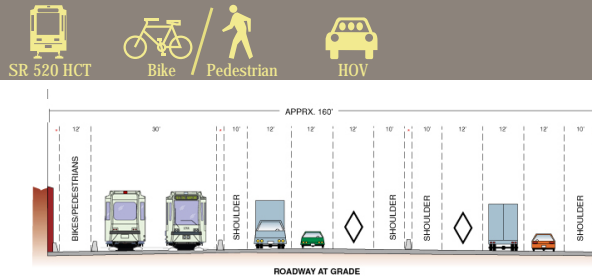
SR 520 HOV, GP, I-90 LRT

- ▶ Add one HOV lane and one general purpose (GP) lane each direction, add bicycle/pedestrian facilities, and aggressive strategies to manage transportation demand
- ▶ Add light rail on I-90, HOV/Bus facilities on SR 520
- ▶ Includes provisions for mitigation and enhancement



Proposed Multi-Modal Alternatives

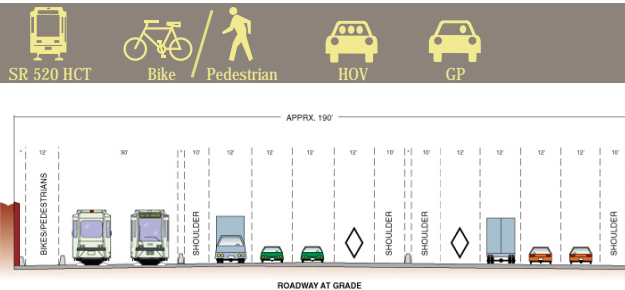
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SR 520 HOV, SR 520 HCT

- ▶ Add one HOV lane each direction, add bicycle/pedestrian facilities, aggressive strategies to manage transportation demand
- ▶ Add fixed guideway on SR 520
- ▶ Assume HOV/Bus in I-90 reversible roadway
- ▶ Includes provisions for mitigation and enhancement

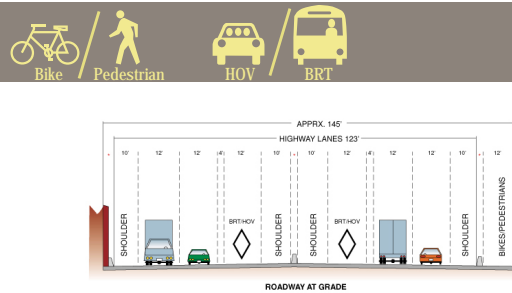
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SR 520 HOV, GP, SR 520 HCT

- ▶ Add one HOV lane and one GP lane each direction, add bicycle/pedestrian facilities, aggressive strategies to manage transportation demand
- ▶ Add fixed guideway on SR 520
- ▶ Assume HOV/Bus in I-90 reversible roadway
- ▶ Includes provisions for mitigation and enhancement

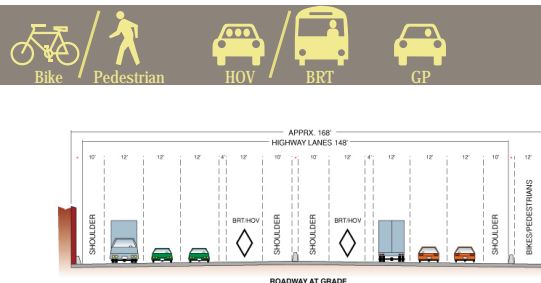
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SR 520 HOV/BRT (Bus Rapid Transit)

- ▶ Add bicycle/pedestrian facilities, and aggressive strategies to manage transportation demand
- ▶ Add HOV/BRT on SR 520
- ▶ Assume HOV/Bus in I-90 reversible roadway
- ▶ Includes provisions for mitigation and enhancement

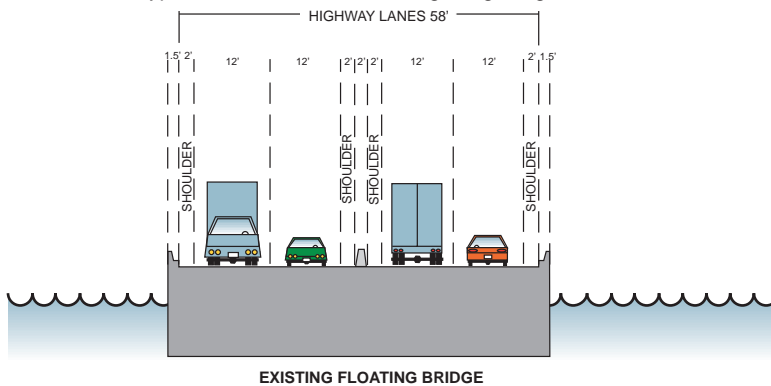
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SR 520 HOV/BRT, GP

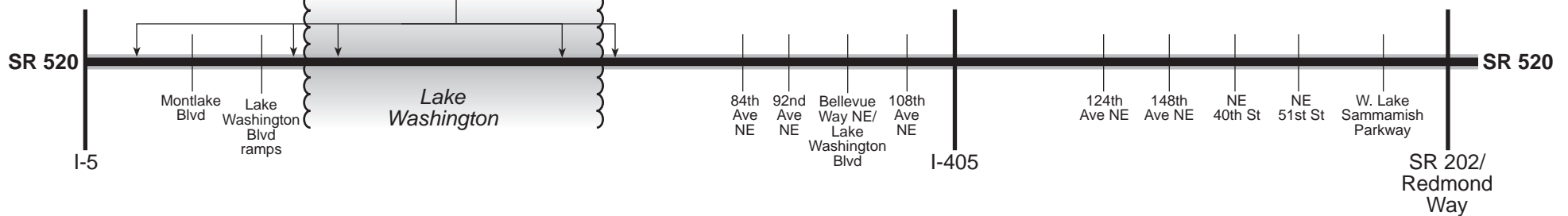
- ▶ Add bicycle/pedestrian facilities, and aggressive strategies to manage transportation demand
- ▶ Add HOV/BRT on SR 520
- ▶ Assume HOV/Bus in I-90 reversible roadway
- ▶ Includes provisions for mitigation and enhancement

Typical cross-section for floating bridge segment



- No major changes or improvements to SR 520. Only continued maintenance of facility
- Assume I-90 would continue reversible center roadway operations.
- Other committed regional projects and services would be implemented, but no substantial action on SR 520.

Routine operations and maintenance of the floating bridge and bridge structures. Does not assume replacement due to the age of the facility or to reduce risk of failure in a catastrophe such as a major storm or a seismic event.

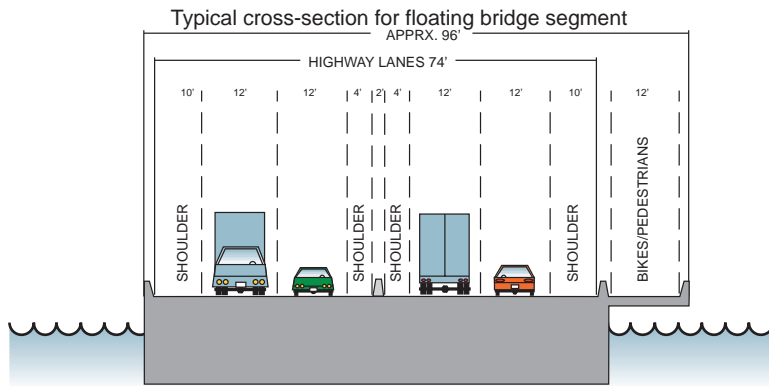


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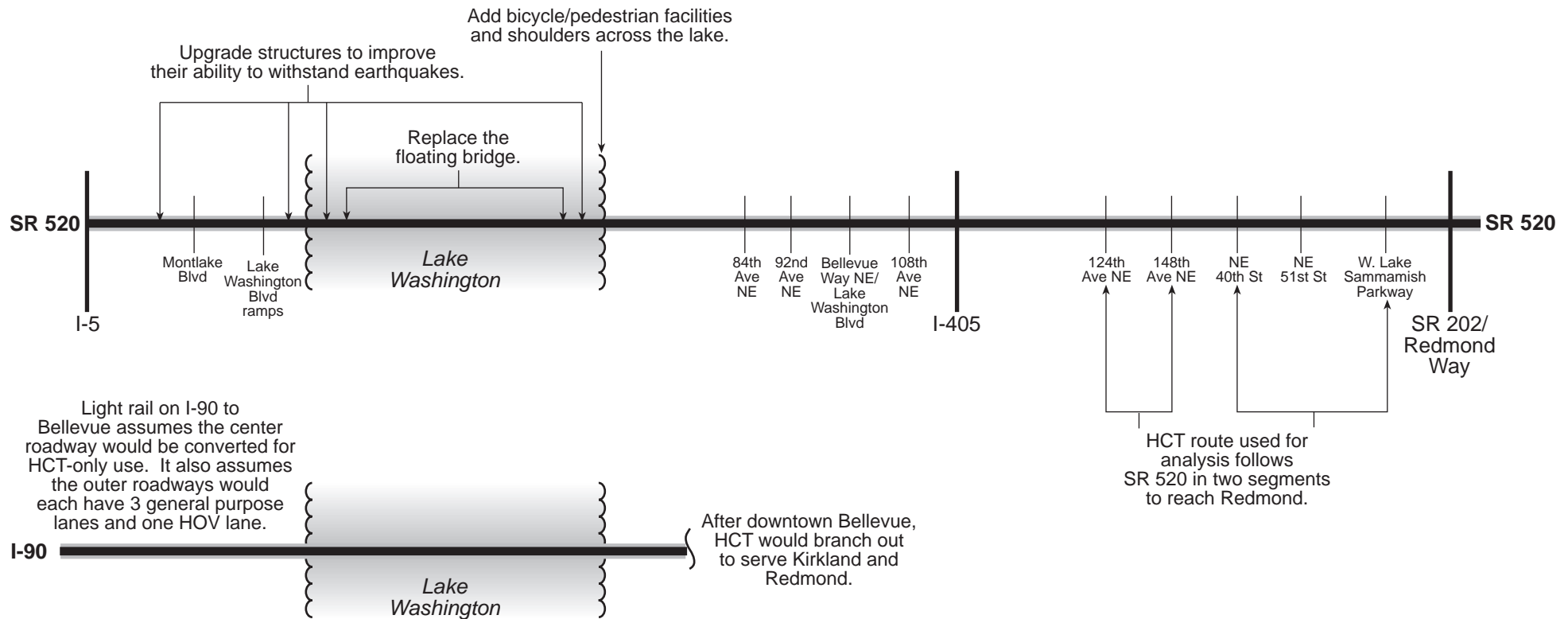
PMX 234-1631-025/13(130300) (K), F2, 04/25/01

Committee Discussion DRAFT as of April 25, 2001

**Alternative 1
No Action**



- Replace the floating bridge. Perform seismic upgrades. Add bicycle/pedestrian facilities and shoulders. Implement aggressive strategies to manage transportation demand. Include provisions for mitigation and enhancement.
- Light rail on I-90.

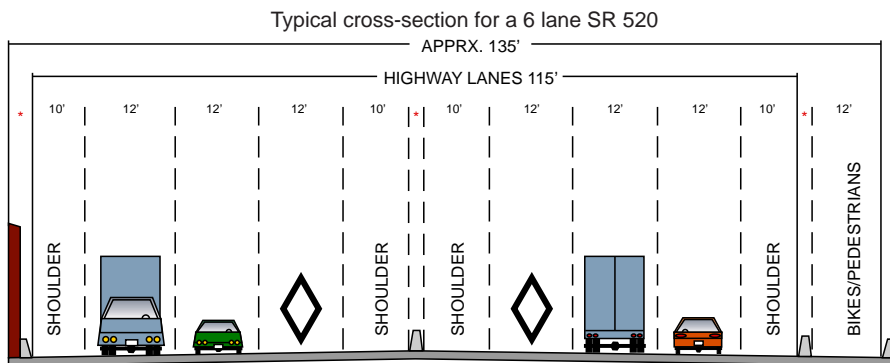


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Alternative 2
SR 520 Safety and Preservation, I-90 HCT



ROADWAY AT GRADE

SR 520 HOV lanes terminate at I-5, but a connection to the I-5 express lanes (south of SR 520 only) would serve westbound HOV in the morning, and eastbound HOV in the evening.

Buses and HOV would have an exclusive route from HOV lanes to the University District.

Bicycle and pedestrian facilities would serve the full corridor but are adjacent to SR 520 approaching and across the lake.

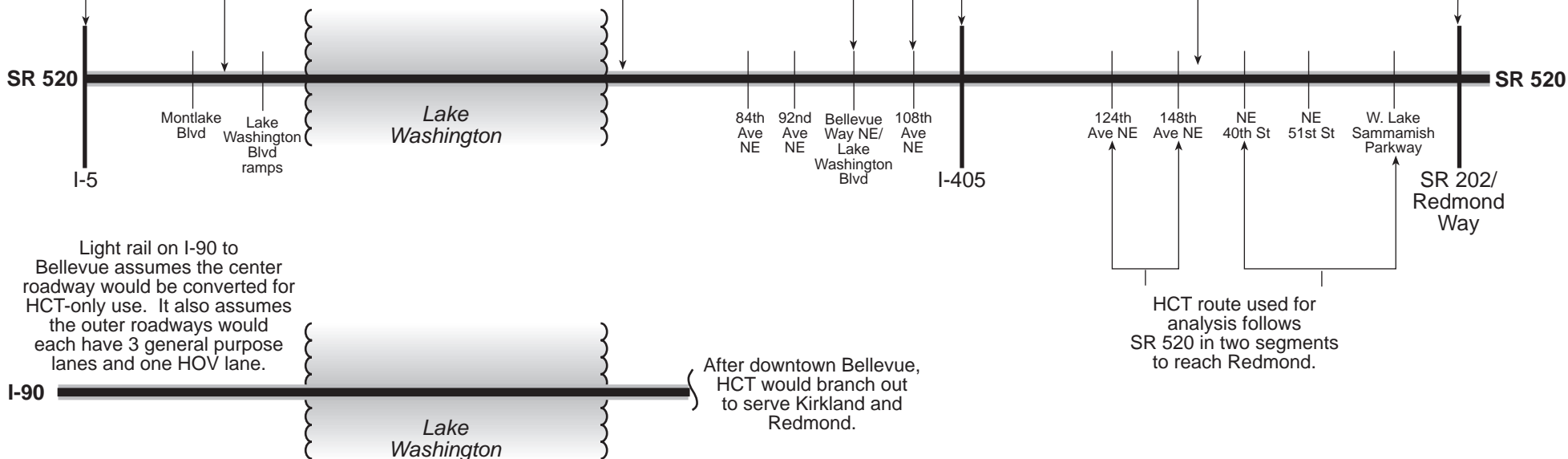
Full interchange at Bellevue Way. Ramps at 108th Ave NE would be closed to general purpose traffic.

Direct connection between HOV lanes and S. Kirkland Park & Ride.

HOV lanes would have exclusive ramps to connect to/from NB/SB HOV lanes on I-405.

Direct connections between HOV lanes and Overlake Park & Ride or freeway transit station.

HOV lanes end.



Light rail on I-90 to Bellevue assumes the center roadway would be converted for HCT-only use. It also assumes the outer roadways would each have 3 general purpose lanes and one HOV lane.

After downtown Bellevue, HCT would branch out to serve Kirkland and Redmond.

HCT route used for analysis follows SR 520 in two segments to reach Redmond.



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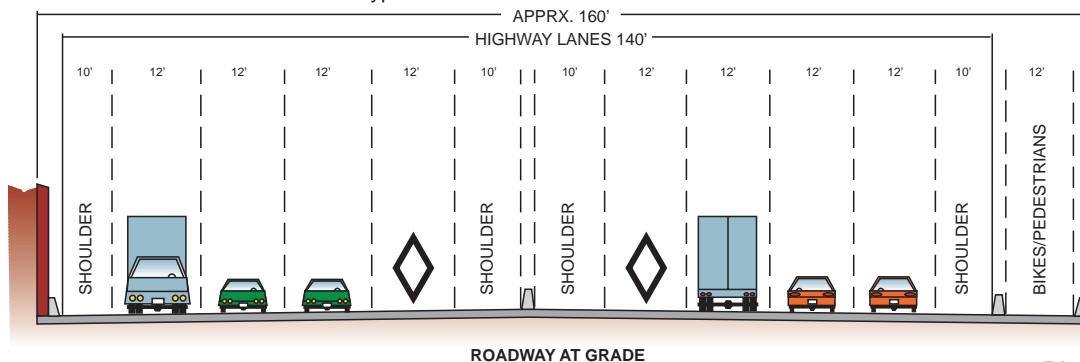
PMX 234-1631-025/13(130300) (K), F2, 04/25/01

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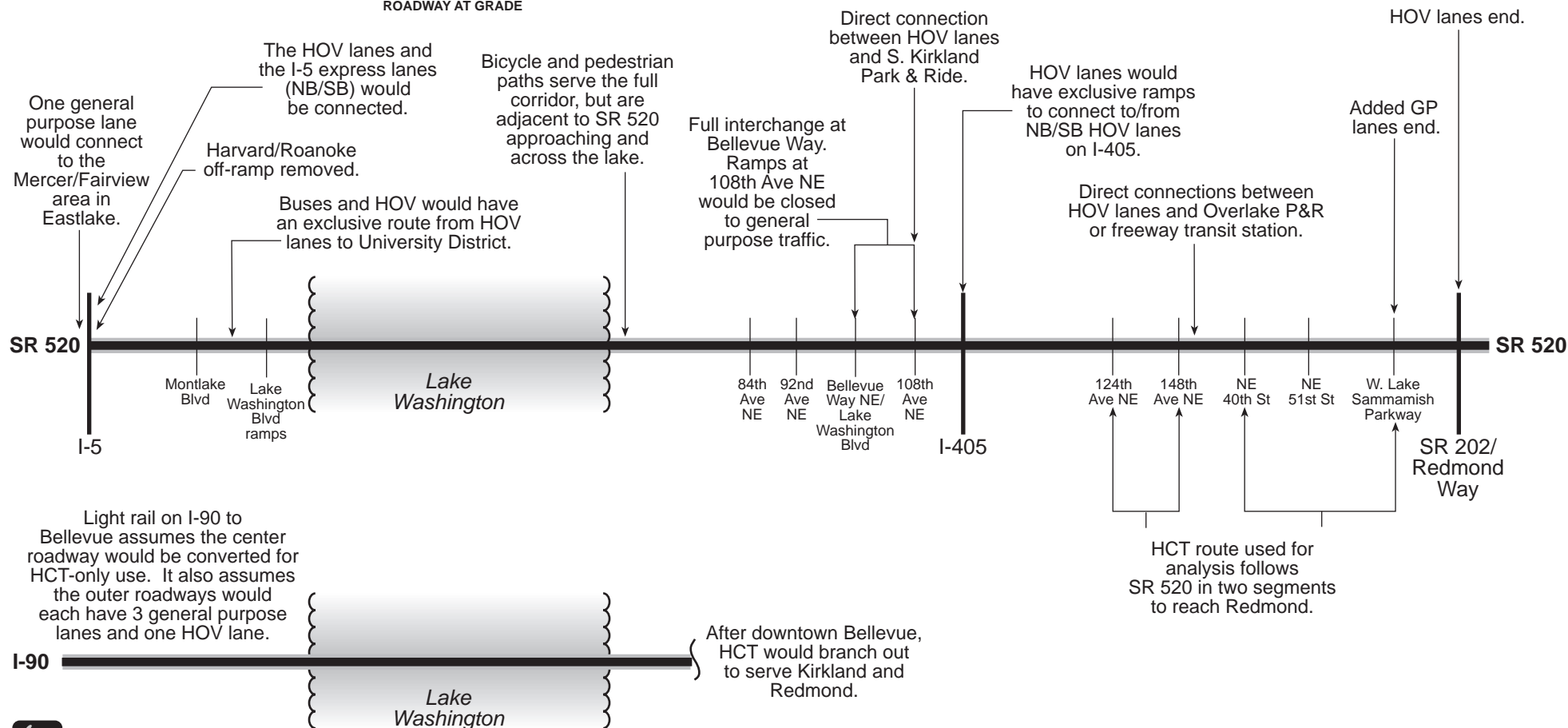
- Add one HOV lane each direction. Add bicycle and pedestrian facilities. Implement aggressive strategies to manage transportation demand. Include provisions for mitigation and enhancement.
- Light rail on I-90.

Alternative 3
SR 520 HOV, I-90 HCT

Typical cross-section for a 8 lane SR 520



- Add one HOV and one general purpose (GP) lane each direction. Improve HOV/Bus facilities. Add bicycle and pedestrian facilities. Implement aggressive strategies to manage transportation demand. Include provisions for mitigation and enhancement.
- Light rail on I-90.



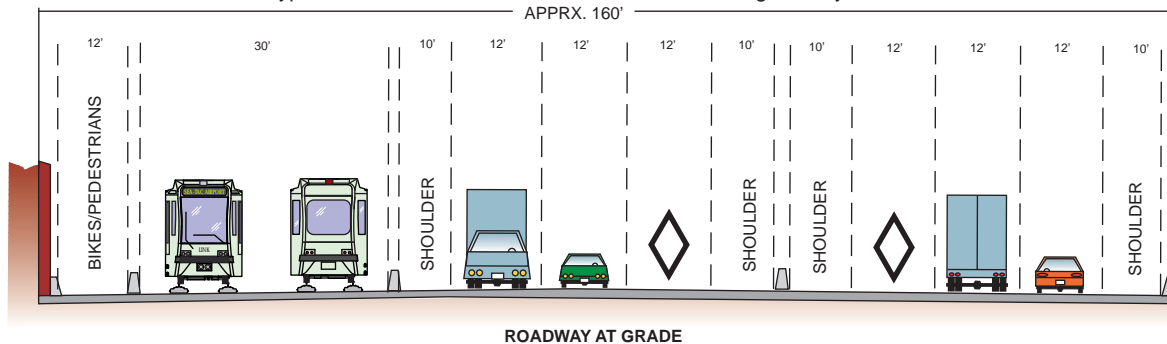
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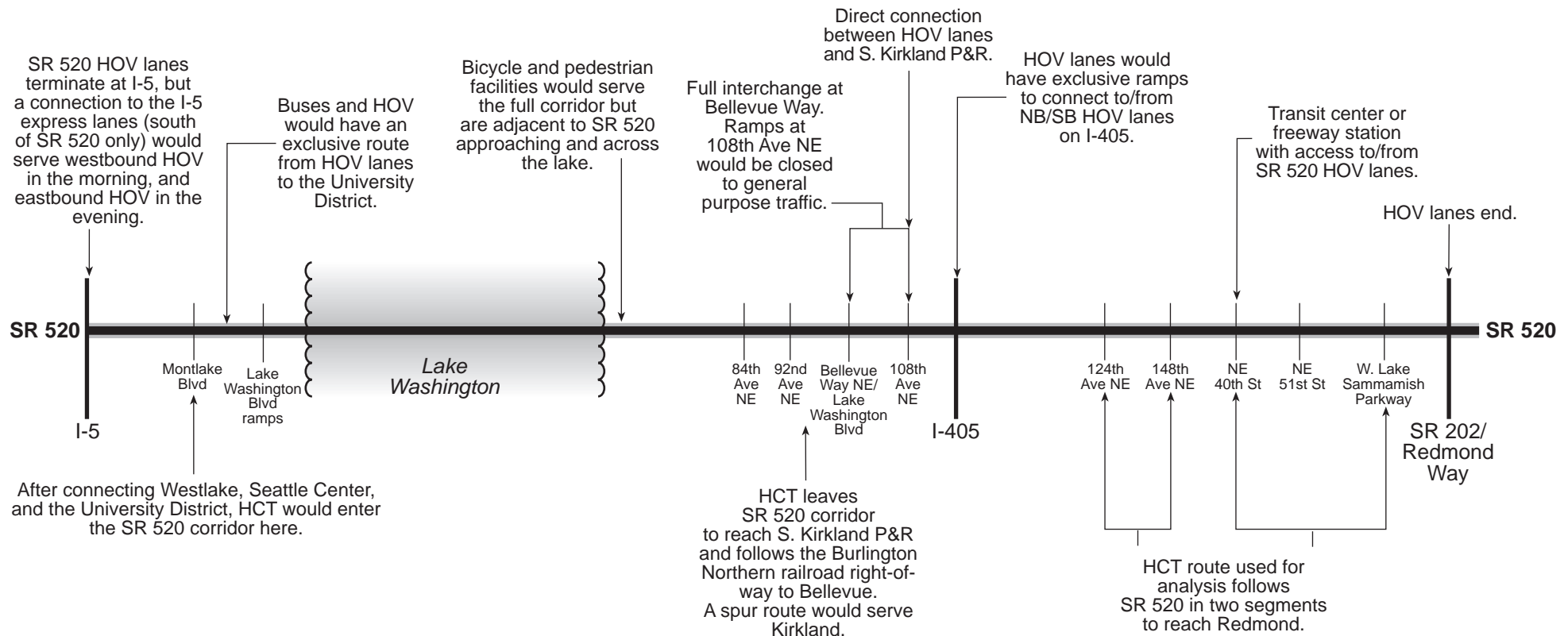
Committee Discussion DRAFT as of April 25, 2001

Alternative 4
SR 520 HOV+GP, and I-90 HCT

Typical cross-section for a 6 lane SR 520 with fixed guideway HCT



- Add one HOV lane each direction. Add bicycle and pedestrian facilities. Implement aggressive strategies to manage transportation demand. Include provisions for mitigation and enhancement.
- Add fixed guideway on SR 520.
- Assume HOV/Bus in I-90 reversible roadway.



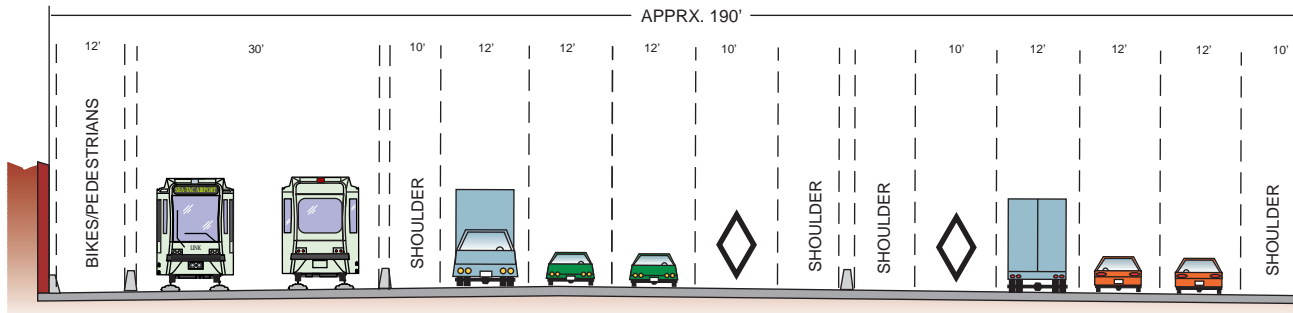
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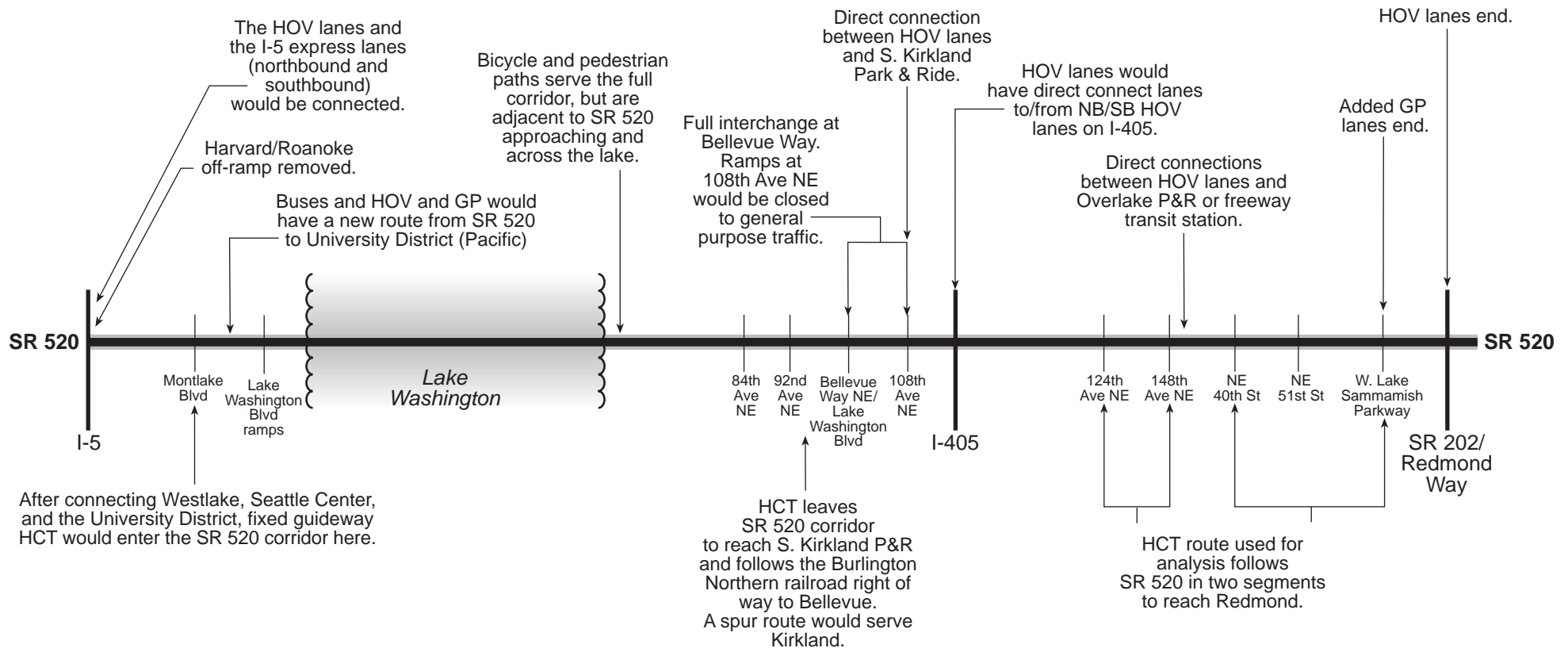
Committee Discussion DRAFT as of April 25, 2001

Alternative 5
SR 520 HOV, SR 520 HCT

Typical cross-section for a 8 lane SR 520 with fixed guideway HCT



- Add one HOV and one general purpose (GP) lane each direction. Add bicycle and pedestrian facilities. Implement aggressive strategies to manage transportation demand. Include provisions for mitigation and enhancement.
- Add fixed guideway HCT on SR 520.

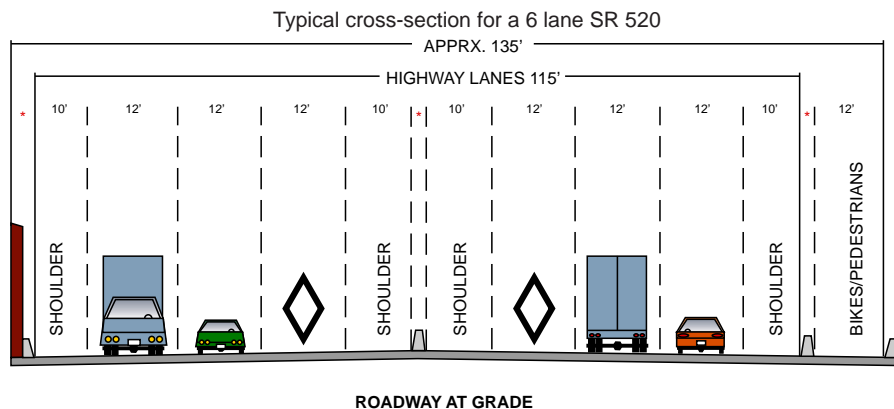


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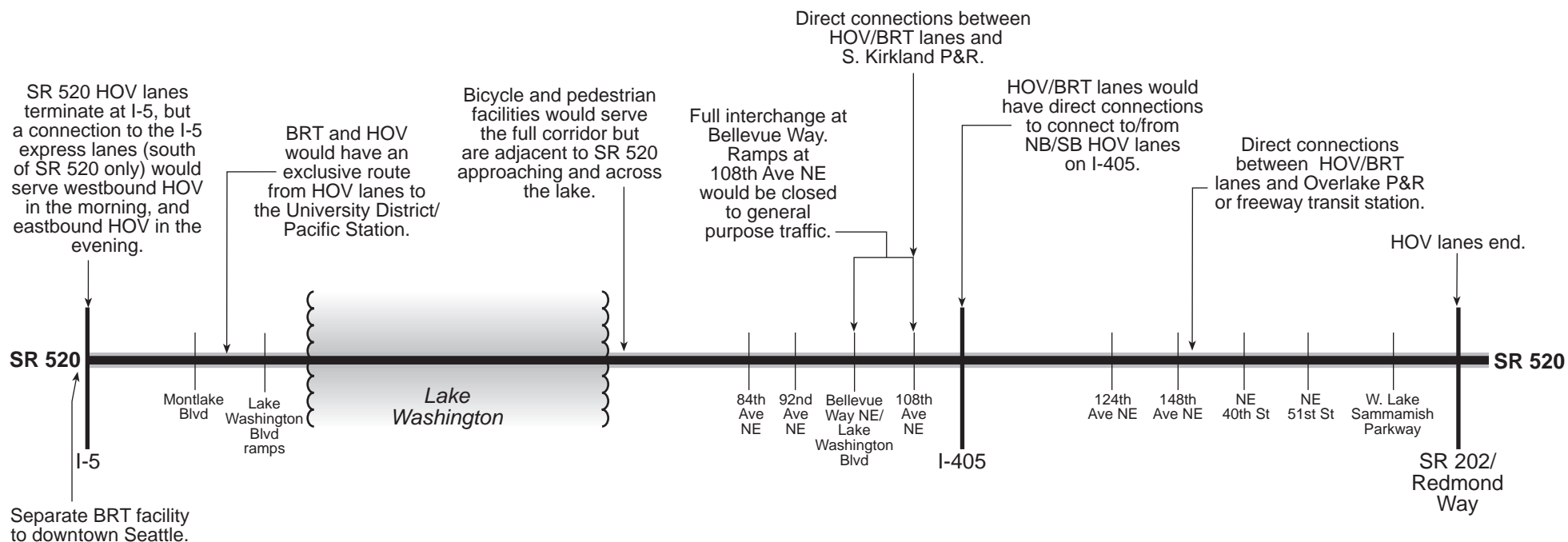
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Committee Discussion DRAFT as of April 25, 2001

Alternative 6
SR 520 HOV+GP, and SR 520 HCT



- Add bicycle and pedestrian facilities. Implement aggressive strategies to manage transportation demand. Include provisions for mitigation and enhancement.
- Add one HOV/Bus Rapid Transit(BRT) lane each way on SR 520.
- Assume bus/HOV in I-90 convertible center roadway.

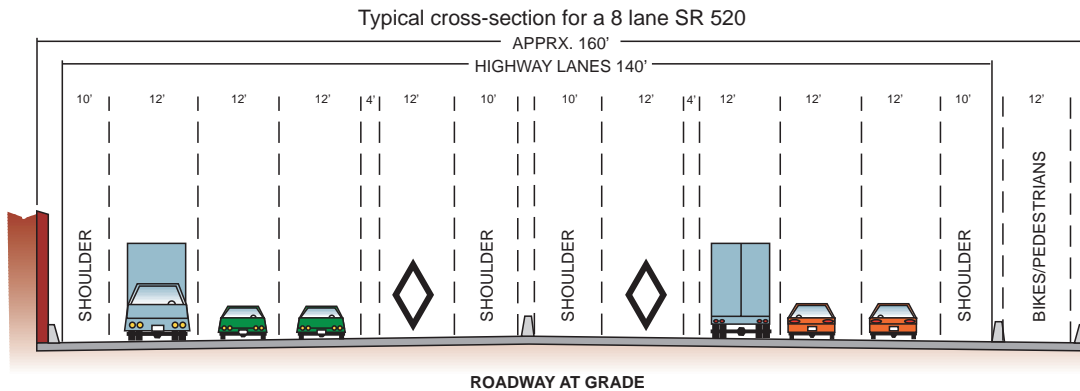


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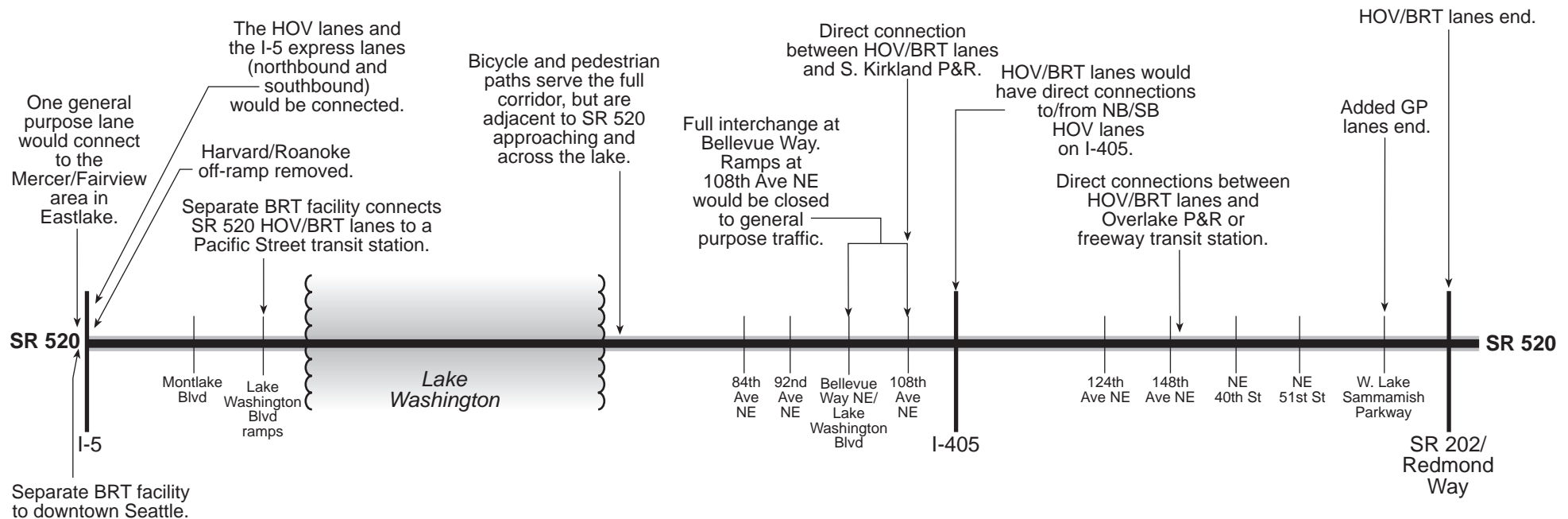
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**Alternative 7
SR 520 HOV/Bus Rapid Transit(BRT)**



- Add bicycle and pedestrian facilities. Implement aggressive strategies to manage transportation demand. Include provisions for mitigation and enhancement.
- Add one HOV/Bus Rapid Transit(BRT) lane each way on SR 520.
- Assume bus/HOV in I-90 convertible center roadway.



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PMX 234-1631-025/13(130300) (K), F2, 04/25/01

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Alternative 8
SR 520 HOV/Bus Rapid Transit+GP